STINGER®

STINGER®
STINGER® HP™
POLYSTINGER™
ULTRASTINGER™
STINGER XT™
STINGER® XT HP™

Operating Instructions

STREAMLIGHT®

OPERATING INSTRUCTIONS FOR STREAMLIGHT STINGER,® STINGER® HP™, POLYSTINGER,™ ULTRASTINGER,® STINGER XT™ AND STINGER® XT HP™

Thank you for selecting the Stinger, a new concept in portable lights. As with any fine tool, reasonable care and maintenance of this product will provide years of dependable service.

Please read this manual before using your Stinger. It includes important safety and operating instructions and should be saved. **Flashlight must be charged overnight before first use.**

SAFETY

A. The UltraStinger, Stinger XT, Stinger HP and Stinger XT HP are not approved for use in hazardous atmospheres. DO NOT attempt to use these in areas requiring explosion proof lighting.

B. SAVE THESE INSTRUCTIONS. This manual contains important safety, operating and maintenance information for your Stinger and charger.

C. Before using the charger, read all instructions and cautionary markings on the charger.

D. **CAUTION:** To reduce risk of fire, electrical shock, or personal injury, do not attempt to use this charger to recharge any other product. Likewise, do not attempt to charge the Stinger with any other charger.

E. Don't abuse the cord. Never carry charger by the cord or yank the cord to disconnect it from a receptacle.

F. Plug AC charger directly into an electrical outlet. Do not use an extension cord.

G. Do not use a damaged charger. Have damaged cords or plugs replaced immediately.

H. Do not put any metal objects onto the charging terminals located in the charger holder. Although there is no electrical shock hazard, this action could cause a burn injury.

I. Remove Stinger from charger holder before attempting any routine cleaning or maintenance. Do not try to repair the unit or charger yourself. Take it to a qualified service facility or return it to the factory.

J. Use only battery #75175 or #77175 (see parts list). The contact arrangement in the Stinger precludes the use of other batteries. Dispose of worn out or damaged batteries properly. Do not attempt to incinerate the battery as it may explode in a fire. Handle the battery carefully and never allow it to short circuit.

K. A small leakage of liquid from the battery cells may occur under extreme usage or high temperature. This does not necessarily indicate a failure. However, if the outer case seal is broken and liquid gets on your skin:
   1) Wash promptly with soap and water.
   2) Neutralize with a mild acid, such as lemon juice or vinegar.
   3) If battery liquid gets into your eyes, flush them with clear water for a minimum of ten (10) minutes and seek immediate medical attention. (Medical note: The liquid is a 25-35% solution of potassium hydroxide.)

L. **CAUTION:** The Stinger's xenon bulb is pressurized. Wearing safety glasses is recommended during bulb replacement. The bulb gets extremely hot. Do not touch a lighted bulb with your bare fingers.

M. Use of this product for other than a lighting device is not recommended. Streamlight specifically disclaims liability for other than recommended use.

CHARGER MOUNTING

The Stinger charger should never be mounted against vinyl or any other heat sensitive surface.

While the charger is designed to hold the Stinger in virtually any orientation, the most secure position is with the light vertical and the head up. It is not recommended to mount the light completely upside down in mobile applications. Although the charger is designed to allow the Stinger to be inserted or removed with zero clearance at the ends of the light, for maximum ease of insertion and removal try to leave a minimum of 1 3/4" clearance from the face cap when the Stinger is in the charger. Two (2) self-tapping #8 x 2" screws are included to mount the charger to a variety of surfaces. The correct size hole for these screws in sheet metal is 1/8."

The charger has four interchangeable power cords:

#22050 12V DC Direct Wire cord (DC2)
#22311 120V AC 60 Hz cord with wall transformer
#22051 12V DC cord with cigarette lighter plug (DCI)
#21725 230V AC 50-60 Hz cord with wall transformer
#22666 100V AC cord with wall transformer
#22665 120V AC 60 Hz cord with wall transformer for Ultra Fast Charger/PB Charger

A triangular plate with two recessed contacts is located on the head of the Stinger opposite the switch button. This plate fits into a mating recess in the charger. The Stinger may be inserted into the charger in two basic ways. You may either place the barrel between the charger arms with the switch facing out, and pull the Stinger head between the arms until it locks into place, or simply press the Stinger head (switch out) into the gap in the arms. This will force the arms apart and allow the head to enter into its proper position. This insertion method allows the Stinger to be mounted with almost zero clearance at its ends.

VEHICLE INSTALLATION
The DC2 cord is offered to permanently mount a Stinger charger in the vehicle.

IMPORTANT: Before making electrical connections in a vehicle, keep in mind that a shorted auto battery can deliver hundreds of amperes, which can easily start a fire. Make all connections with insulated lugs or other connectors intended for such use. Be sure that your installation is fused.

The Stinger when charging on a standard charger draws a constant .2 amperes from a vehicle.

If the optional fast charger is used, it will draw between .5 and .7 amps for up to 2 1/2 hours during the fast charge period. During maintenance charge, current is pulsing and effectively draws .1 amps until fast charge is re-started.

We ordinarily recommend that the charger be connected directly to the battery, through a 1-5 amp fuse, or that it be connected to an unswitched terminal on the vehicle fuse block. However if the vehicle is used infrequently, the charger should be connected to an ignition key-switched terminal to avoid draining the vehicle battery. If this is the case, it may be preferable to use an AC charger rather than leaving the Stinger in a vehicle to ensure that the Stinger receives a full charge.

The optional Stinger fast charger should always be connected to an unswitched power source to prevent repeated and unnecessary fast charge initiation.

When connecting the charger to a fuse block, the power lead goes to the connector that is dead with the fuse removed.

The striped power lead is positive and the unmarked lead is negative. Since the charger body is electrically isolated from the charge circuit, positive ground installations are not a problem. The Stinger is diode protected and if connected in reverse polarity simply won't operate until connected properly.

CHARGING
Fully charge your Stinger before first use. Several charge/discharge cycles may be necessary to achieve full battery capacity. The Stinger is designed to be left in the charger continuously when not in use. This will ensure the Stinger is always ready for use, and there is no danger of overcharge. See *Care and Use of Nickel-Cadmium Batteries* for additional battery information.

To charge the Stinger, first turn off and insert it into the charger. The LED in the charger should light, indicating charge current is flowing. A full charge will take approximately ten (10) hours, 2.5 hours for fast charging. The Stinger should run for more than one (1) hour after a full charge.

NOTE: Leaving the lamp on after it becomes noticeably dim can reduce the useful life of the battery.

FAST CHARGING
If you have purchased a Stinger with an optional Fast Charger, the Stinger Fast Charger will charge a fully depleted Stinger battery in good condition within 2.5 hours. When the Stinger is placed into the fast charger, the red LED will light continuously, indicating the fast charge rate (700 ma) is being applied. Special circuitry senses when the battery has received a full charge, switches to a lower "maintenance" charge rate and causes the LED to blink, indicating the maintenance rate is being applied and that the Stinger has received a full charge. A secondary safety circuit will discontinue the fast rate after approximately 2.5 hours if for any reason the primary circuit fails to terminate the fast charge.

PIGGYBACK CHARGER
When the battery is slipped into the charger, the red light will glow indicating that the battery is being charged at a steady rate. Charging will continue as long as power is applied to the charger. The battery may be continuously charged in the PiggyBack charger at any temperature above 0ºF. The light should go out when the battery is removed from the charger.

NOTE: When the spare battery is out of the PiggyBack charger, keep the yellow battery cap over the battery contacts to avoid shorting out the battery.

CHARGE TEMPERATURE AND THE STINGER FAST CHARGER.
The Stinger fast charger is equipped with circuitry to prevent fast charging in temperature extremes (below 40° F and above 130° F). When fast charge is inhibited by temperature, a maintenance charge is applied and the LED flashes. When temperature is acceptable fast charge will begin.

1. **WARNING:** In mobile installations do not connect the fast charger to a switched power source. The fast charger must be connected directly to the vehicle battery or to the unswitched side of the ignition through a 2 amp fuse. Use a lighter plug only if the vehicle lighter socket is not switched off by the ignition switch and only if the plug fits the lighter securely. There is a risk of battery damage or explosion if the fast charger power supply is repeatedly switched "off" and "on." When the charger is delivering maintenance rate, the drain on a vehicle battery is a minimal .1 amps.

2. Keep the flashlight and charger contacts clean at all times. Poor contacts can cause charger malfunction. An abrasive pencil eraser works well to clean the contacts.
3. Observe the red LED:
   A. If it does not blink rapidly and continuously, indicating a full charge, within 2.75 hours of flashlight insertion, examine the charger and installation for intermittent wiring that may be resetting the fast charge rate. If no obvious external fault is found, return the system to Streamlight for service.
   B. If you notice that it always takes longer than 2.5 hours for the LED to blink, especially if the flashlight has not been fully discharged, return the system for service.
   C. If at normal room temperatures the LED does not come on steady when you insert the flashlight, return the system for service.
   D. Proper function of the fast charge termination circuit can be tested by the following: Insert a flashlight into the charger for at least 5 minutes. Without removing it from the charger, turn it "on". In approximately ten (10) seconds, the LED should switch to blink mode.
4. The fast charge system is not recommended for the UltraStinger.

BULB REPLACEMENT
1. Use only Stinger replacement #75914 for Stinger, Stinger XT, and PolyStinger; #78914 for UltraStinger; #78915 for Stinger HP/Stinger XTHP. A spare bulb is stored in the tail cap in Stinger and PolyStinger.

2. Allow the Stinger bulb to cool before attempting replacement. Wear eye protection.

3. Before working on the Stinger, remove the tail cap and battery.

4. Unscrew and remove the face cap/reflector assembly and the focus spring in the UltraStinger. This will expose the bulb and the front of the switch module.

5. Remove the old bulb by pulling on the glass. Observe the relationship of the bulb pins to the contact holes in the switch module.

6. Insert the pins of the new bulb into the small slots to the inside of the contacts in the switch module, and push the base of the bulb against the switch module, taking care not to bend the pins. Wipe the bulb clean of fingerprints.

7. Replace the face cap/reflector, battery and tail cap. Turn the Stinger "on" and check the focus. If satisfactory focus cannot be obtained by turning the face cap, the bulb is probably not on center. Turn off the Stinger and look into the reflector to see if the bulb is offset to one side. **BE CAREFUL, THE BULB WILL BE HOT**. Remove the face cap/reflector and gently push the bulb towards center. Replace the face cap/reflector and recheck the focus.

CARE AND USE OF NICKEL-CADMIUM BATTERIES
In order to obtain the maximum performance and life from the nickel-cadmium batteries supplied with the Stinger:

1. Thoroughly read the sections in this manual covering *Safety, Charger Mounting* and *Charging*.

2. Fully charge the Stinger before first use.

3. Although the Stinger is designed to be left on charge continuously, there is an exception; if the surrounding temperature is below 10°F, continuous charging is not recommended.

4. There are special considerations to note when using multi-cell rechargeable nickel-cadmium batteries, such as found in the Stinger. If a nickel-cadmium battery is subjected to repeated and extensive overdeep discharges, such as an aggressive conditioning procedure to eliminate "memory," which runs the battery down completely on a regular basis, it can experience a voltage reversal of one of the individual cells. This may cause a buildup of pressure within the cell which can lead to venting of the electrolyte, cell damage and early battery failure. In addition, should the pressure relief vent on the top of the battery become damaged, this pressure increase could cause the cell to burst, causing damage to the Stinger, and possible personal injury.

5. To obtain the safest and longest service from your rechargeable products, Streamlight, in conjunction with the leading manufacturers of nickel-cadmium batteries, offers the following recommendations:
   A. Do not periodically "condition" or "exercise" your flashlight battery despite what you may have been told about nickel-cadmium "memory." According to the most recent technical manuals of battery manufacturers, the actual existence of "memory" in a battery used under the conditions of flashlight service is extremely unlikely. Streamlight specifically discourages a regular ritual of deep discharging, which is not only unnecessary, but will greatly shorten lamp and battery life.
   B. If the battery is overdischarged, there may be a small leakage of alkaline electrolyte from the safety vent on top of the cell. It appears as a powdery substance and can affect the integrity of the electrical contact. We recommend that your battery be periodically inspected and the contact area wiped clean should any electrolyte be present. Use caution when handling a battery that has leaked. The electrolyte is a strong caustic and can burn or irritate the skin and eyes.

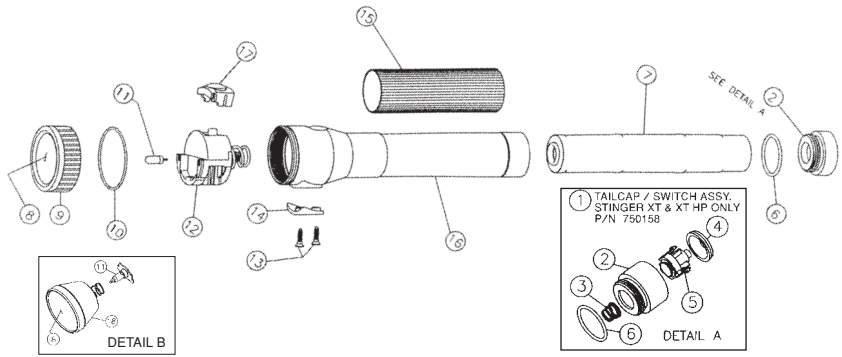
WARNING: Be sure to use genuine Streamlight replacement parts. Use of another manufacturer's replacement parts could affect product performance.

NOTE: The rechargeable battery contained in this product is recyclable. At the end of its useful life, under various country and state laws, it may be illegal to dispose of this battery in the municipal solid waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Replacement Parts

Item	Quantity	Part No.	Description
1	1	750158	Tail Cap Assembly, Stinger XT & XT HP
2	1	750058	Tail Cap, Stinger XT & XT HP
		750057	Tail Cap/Vent, Stinger, HP & UltraStinger
		760057	Tail Cap/Vent, PolyStinger
3	1	850020	Battery Neg. Spring, Stinger XT & XT HP
4	1	750061	Switch Boot, Stinger XT & XT HP
5	1	850018	Switch Assembly, Stinger XT & XT HP
6	1	700025	O-Ring, Tail Cap (All)
7	1	75175	Battery; Stinger, HP, PolyStinger, XT & XT HP
		77175	Battery, UltraStinger
8*	1	750009	Lens (Stinger, Polystinger, & XT)
		20160	Lens, Stinger HP, UltraStinger & XT HP
9	1	75956	Facecap/Reflector Assembly, Stinger, HP, Ultra, XT & XT HP
		76956	Facecap/Reflector Assembly, PolyStinger
10	1	750017	O-Ring, Head (All)
11	1	75914	Bulb; PolyStinger, Stinger & XT
		78914	Bulb, UltraStinger
		78915	Bulb, Stinger HP & XT HP
12*	1		Switch Module Assembly (w/item # 13, 14 & 17)
		75140	Stinger, PolyStinger, UltraStinger & HP
		75125	Lamp Holder, Stinger XT & XT HP
			(w/item # 13, 14 & Ground Contact)
13	2	750006	Screw, Contacts (All)
14	1	750005	Charge Plate; Stinger, Ultra, HP, XT & XT HP
15	1	750277	Sleeve, Stinger HP, XT & XT HP
		760015	Sleeve, PolyStinger
16	1	750075	Head/Barrel, Stinger XT & XT HP
		750055	Head/Barrel, Stinger & HP
		775055	Head/Barrel, UltraStinger
		760555	Body/Sleeve, PolyStinger Black
		760055	Body/Sleeve, PolyStinger Yellow
		760855	Body/Sleeve, PolyStinger OD Green
17*	1	750016	Switch Gasket, Stinger, HP, PolyStinger & UltraStinger
18	1	775001	Reflector, UltraStinger, Stinger HP & XT HP (see detail B)

*Special tools required for assembly.



* Stinger and PolyStinger Only

	Length	Weight	Material	Bulb	Battery	Maximum Output	Charge Rate (Fast Charger)	Charge Rate	Continuous Run Time	Charge Time	Charge Time (Fast Charger)
Stinger®	7 3/8"	10.3 oz.	Aircraft Aluminum	T 1 1/2 Bi-Pin Xenon	3 Sub 'C' Welded Stick	Up to 15,000 Candlepower	800 mA	180 mA	1 hour	10 hours	2.5 hours
Stinger® HP™	8 1/4"	12.2 oz.	Aircraft Aluminum	T 2 1/2 Bi-Pin Xenon Halogen	3 Sub 'C' Welded Stick	Up to 40,000 Candlepower	800 mA	180 mA	1 hour	10 hours	2.5 hoursl
Stinger XT™	7.7"	11.1 oz.	Aircraft Aluminum	T 1 1/2 Bi-Pin Xenon	3 Sub 'C' Welded Stick	Up to 15,000 Candlepower	800 mA	180 mA	1 hour	10 hours	2.5 hours
Stinger® XT HP™	8 5/8"	14.6 oz.	Aircraft Aluminum	T 2 1/2 Bi-Pin Xenon Halogen	3 Sub 'C' Welded Stick	Up to 40,000 Candlepower	800 mA	180 mA	1 hour	10 hours	2.5 hours
PolyStinger™	7 3/8"	8.7 oz.	Super Tough Nylon	T 1 1/2 Bi-Pin Xenon	3 Sub 'C' Welded Stick	Up to 15,000 Candlepower	800 mA	180 mA	1 hour	10 hours	2.5 hours
UltraStinger®	11 3/4"	1.1 lbs.	Aircraft Aluminum	T 2 1/2 Bi-Pin Xenon	5 Sub 'C' Welded Stick	Up to 75,000 Candlepower	800 mA	180 mA	1 hour	10 hours	2.5 hours

MANUFACTURER
Streamlight, Inc.
30 Eagleville Road / Eagleville, PA USA 19403-3996
(610) 631-0600 / (800) 523-7488 / Fax (610) 631-0712 / Fax (800) 220-7007 / **www.streamlight.com**

IMPORTANT – Be sure to use genuine **Streamlight** replacement parts.

WARRANTY REGISTRATION: To register the warranty on your Streamlight, complete the card enclosed and mail to Streamlight, Inc., within ten (10) days of purchase. When returning product for warranty repairs, please provide receipt or other proof of purchase.

PRODUCT USE: The Streamlights are intended for use as high intensity, heavy duty, rechargeable, portable light sources. Use of the Streamlights for any purpose other than light sources is specifically discouraged by the manufacturer.

The rechargeable battery contained in this product is recyclable. At the end of its useful life, under various country and state laws, it may be illegal to dispose of this battery in the municipal solid waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

WARRANTY Streamlight Stinger,® Stinger® HP,™ PolyStinger,™ UltraStinger,® Stinger XT,™ and Stinger® XT HP™
Streamlight makes no express warranties other than those expressly provided herein. Streamlight does not make, and hereby expressly disclaims, any implied warranties, including warranties of merchantability or fitness for a particular purpose, except to the extent that implied warranties may not be disclaimed under applicable law. To the extent any such implied warranties may not be disclaimed under applicable law, the duration of such implied warranties shall be limited to the minimum period required by applicable law. Streamlight's responsibility under all warranties, both expressed and implied, shall be limited to the repair, replacement or refund of the purchase price of any products covered by such warranty. Streamlight shall, in no event, be liable for any other damages, including consequential or incidental damages. Some jurisdictions my not allow the waiver of or limitations on the scope or duration of implied or expressed warranties or on the exclusion of consequential or incidental damages, in which case the above waivers, limitations or exclusion may not apply to you.

Money Back Guarantee
Your Streamlight is unconditionally guaranteed to perform to your satisfaction or your money will be refunded, provided you return your Streamlight to the seller (shipping charges prepaid) within ten (10) days of purchase, along with receipt or any proof of purchase for full refund.

Warranty Registration Card
Complete and return Warranty Registration Card within ten (10) days of purchase to register your warranty. Retain your receipt or any proof of purchase. Failure to return the Warranty Card as required will invalidate the warranty and service coverages described herein.

Warranty
Your Streamlight, including case and all internal components, but excluding lamp, battery and charger holder, has a Limited Lifetime Warranty from date of purchase. In any country or jurisdiction where specific limitations are placed on limited lifetime warranties, Streamlight will honor a 10-Year Limited Warranty. Should your Streamlight fail to operate, return it (shipping charges prepaid) to the factory or Authorized Service Center at the address listed with these instructions, along with your proof of purchase and, if you have owned your Streamlight for more than one (1) year, $5.00 for handling. Streamlight will repair or replace the warranted defective parts without cost and return the unit to you (shipping charges prepaid within the Continental USA) or, at Streamlight's option, if permitted by law, Streamlight will refund your purchase price.

Limitations on Warranty and Service Coverage
1. Warranty is invalid if, in Streamlight's sole opinion, there has been tampering, alteration, abuse, misuse, or failure to follow proper care and maintenance procedures.
2. This warranty shall not extend to repairs by anyone other than Streamlight or other than service facilities
   designated by Streamlight.
3. This warranty is limited to the original user-purchaser as such appears on the Warranty Registration Card.

Battery Stick and Charger Holder Warranty
The Battery Stick and Charger Holder are warranted for a period of one (1) year in accordance with the
above terms.

Serial #_____ Date of Purchase _____
(Stinger, Stinger HP, UltraStinger, Stinger XT, Stinger XT HP only)

This warranty gives you specific legal rights and you may also have other rights.

©2002 2/02